Buddy Garcia, *Chairman*Larry R. Soward, *Commissioner*Bryan W. Shaw, Ph.D., *Commissioner*Glenn Shankle, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

January 10, 2008

TO: Persons on the attached mailing list.

RE: United States Department of Energy and BWXT Pantex, L.L.C.

TPDES Permit No. WQ0002296000

Decision of the Executive Director.

The executive director has made a decision that the above-referenced permit application meets the requirements of applicable law. This decision does not authorize construction or operation of any proposed facilities. Unless a timely request for contested case hearing or reconsideration is received (see below), the TCEQ executive director will act on the application and issue the permit.

Enclosed with this letter is a copy of the Executive Director's Response to Comments. A copy of the complete application, draft permit and related documents, including public comments, is available for review at the TCEQ Central office. A copy of the complete application, the draft permit, and executive director's preliminary decision are available for viewing and copying at Carson County Library, 401 Main Street, Panhandle, Texas.

If you disagree with the executive director's decision, and you believe you are an "affected person" as defined below, you may request a contested case hearing. In addition, anyone may request reconsideration of the executive director's decision. A brief description of the procedures for these two requests follows.

How To Request a Contested Case Hearing.

It is important that your request include all the information that supports your right to a contested case hearing. You must demonstrate that you meet the applicable legal requirements to have your hearing request granted. The commission's consideration of your request will be based on the information you provide.

The request must include the following:

- (1) Your name, address, daytime telephone number, and, if possible, a fax number.
- (2) If the request is made by a group or association, the request must identify:
 - (A) one person by name, address, daytime telephone number, and, if possible, the fax number, of the person who will be responsible for receiving all communications and documents for the group; and
 - (B) one or more members of the group that would otherwise have standing to request a hearing in their own right. The interests the group seeks to protect must relate to the organization's purpose. Neither the claim asserted nor the relief requested must require the participation of the individual members in the case.
- (3) The name of the applicant, the permit number and other numbers listed above so that your request may be processed properly.
- (4) A statement clearly expressing that you are requesting a contested case hearing. For example, the following statement would be sufficient: "I request a contested case hearing."

Your request must demonstrate that you are an "affected person." An affected person is one who has a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application. Your request must describe how and why you would be adversely affected by the proposed facility or activity in a manner not common to the general public. For example, to the extent your request is based on these concerns, you should describe the likely impact on your health, safety, or uses of your property which may be adversely affected by the proposed facility or activities. To demonstrate that you have a personal justiciable interest, you must state, as specifically as you are able, your location and the distance between your location and the proposed facility or activities.

Your request must raise disputed issues of fact that are relevant and material to the commission's decision on this application. The request must be based on issues that were raised during the comment period. The request cannot be based solely on issues raised in comments that have been withdrawn. The enclosed Response to Comments will allow you to determine the issues that were raised during the comment period and whether all comments raising an issue have been withdrawn. The public comments filed for this application are available for review and copying at the Chief Clerk's office at the address below.

To facilitate the commission's determination of the number and scope of issues to be referred to hearing, you should: 1) specify any of the executive director's responses to comments that you dispute; and 2) the factual basis of the dispute. In addition, you should list, to the extent possible, any disputed issues of law or policy.

How To Request Reconsideration of the Executive Director's Decision.

Unlike a request for a contested case hearing, anyone may request reconsideration of the executive director's decision. A request for reconsideration should contain your name, address, daytime phone number, and, if possible, your fax number. The request must state that you are requesting reconsideration of the executive director's decision, and must explain why you believe the decision should be reconsidered.

Deadline for Submitting Requests.

A request for a contested case hearing or reconsideration of the executive director's decision must be in writing and must be received by the Chief Clerk's office no later than 30 calendar days after the date of this letter: You should submit your request to the following address:

LaDonna Castañuela, Chief Clerk TCEQ, MC-105 P.O. Box 13087 Austin, Texas 78711-3087

Processing of Requests.

Timely requests for a contested case hearing or for reconsideration of the executive director's decision will be referred to the alternative dispute resolution director and set on the agenda of one of the commission's regularly scheduled meetings. Additional instructions explaining these procedures will be sent to the attached mailing list when this meeting has been scheduled.

How to Obtain Additional Information.

If you have any questions or need additional information about the procedures described in this letter, please call the Office of Public Assistance, Toll Free, at 1-800-687-4040.

Sincerely, Carrie askining

LaDonna Castañuela

Chief Clerk

LDC/er

Enclosures

MAILING LIST

for

United States Department of Energy and BWXT Pantex, L.L.C. TPDES Permit No. WQ0002296000

FOR THE APPLICANT:

Craig Snider DOE/NNSA P.O. Box 30030 Amarillo, Texas 79120-0030

R.H. Pankratz BWXT Pantex, L.L.C. P.O. Box 30020 Amarillo, Texas 79120-0020

FOR THE EXECUTIVE DIRECTOR:

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FOR THE CHIEF CLERK:

LaDonna Castañuela Texas Commission on Environmental Quality Office of Chief Clerk MC-105 P.O. Box 13087 Austin, Texas 78711-3087

PROTESTANTS/INTERESTED PERSONS:

See attached list.

MAVIS BELISLE DIRECTOR THE PEACE FARM 188 US HIGHWAY 60 PANHANDLE TX 79068-7200

DANA KOETTING 909 CR G PANHANDLE TX 79068 C E WILLIAMS DIST MGR PANHANDLE GROUNDWATER CONSERV DIST PO BOX 637 WHITE DEER TX 79097-0637

ADDIS CHARLESS JR 2100 CR D PANHANDLE TX 79068 DALE LIVINGSTON 5817 NE 21ST AVE AMARILLO TX 79107-7564

PENNI CLARK 1800 CLARK RD MIAMI TX 79059-4608 RICHARD LOWERRE LOWERRE & FREDERICK 44 EAST AVE STE 100 AUSTIN TX 78701-4386

BERNICE & DANNY DETTEN 15600 STATE HIGHWAY 136 PANHANDLE TX 79068-5001 JIM MURPHY SECRETARY PEACE FARMS 6711 COLUMBIA LN AMARILLO TX 79109-6805

JEFF DETTEN 501 FM 1342 PANHANDLE TX 79068-7311

JERI OSBORNE 307 FM 293 PANHANDLE TX 79068

ROBERT DUNCAN STATE SENATOR - DISTRICT 1500 BROADWAY ST STE 902 LUBBOCK TX 79401-3108 BILLIE POTEET 857 CR 14 PANHANDLE TX 79068

JENNIFER FOSTER SENATOR ROBERT DUNCAN 119 AVE B NW CHILDRESS TX 79201 DORIS & PHILLIP SMITH 18001 EL RANCHO RD PANHANDLE TX 79068-5000

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TONYA KLENSKENS STAND INC 4308 CR E HEREFORD TX 79045 JERRY STEIN 5113 SW 16TH AVE AMARILLO TX 79106-4418

PROPOSED TCEQ PERMIT NO. WQ0002296000

APPLICATION BY	§ .	BEFOR
UNITED STATES DEPARTMENT OF	Š	TEXAS CO
ENERGY AND BWXT PANTEX, L.L.C.	§	O
FOR PROPOSED TCEQ PERMIT NO.	\$	ENVIRONMEN
WQ0002296000	§	

BEFORE THE TEXAS COMMISSION ON ENVIRONMENTAL QUARTITY

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EXECUTIVE DIRECTOR'S RESPONSE TO PUBLIC COMMENT

The Executive Director of the Texas Commission on Environmental Quality (the Commission or TCEQ) files this Response to Public Comment (Response) on the application for a major amendment of Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0002296000 to now become TCEQ Permit No. WQ0002296000 by the United States Department of Energy and BWXT Pantex, L.L.C. (Applicant or Pantex) and the Executive Director's preliminary decision. Pursuant to 30 Texas Administrative Code (TAC) § 55.156, before an application is approved and a permit issued, the Executive Director prepares a response to all timely, relevant and material, or significant comments. The Office of the Chief Clerk timely received comment letters from Mavis Belisle; Addis Charless, Jr.; Danny and Bernice Detten; Jeff Detten; Mary Hochstein; Dana Koetting; Dale Livingston; J. Murphy; Jeri Osborne; Doris and Phillip Smith; Cletus Stein; C.E. Williams, on behalf of the Panhandle Groundwater Conservation District; and the Honorable Robert Duncan. A public meeting was held on April 12, 2007. Formal oral comments were provided at the public meeting by Mavis Belisle; Penni Clark; Don Hancock; Tonya Klenskens; Doris Smith; Jerry Stein; and C.E. Williams on behalf of the Panhandle Groundwater Conservation District. This Response addresses all timely comments received, whether or not withdrawn.

BACKGROUND

Facility Description

The United States Department of Energy and BWXT Pantex, L.L.C., c/o National Nuclear Security Administration, P.O. Box 30030, Amarillo, Texas 79120-0030, operates a facility principally engaged in the assembly of nuclear weapons from components received from other Department of Energy plants; the fabrication of chemical high explosive components for nuclear weapons; surveillance testing and processing of chemical high explosives; disassembly of nuclear weapons; maintenance, modification, repair and nonexplosive testing of nuclear weapons components; and disposal of treated environmental restoration wastewater. The Applicant has applied to the Texas Commission on Environmental Quality (TCEQ) for a major amendment of TPDES Permit No. WQ0002296000, now to become TCEQ Permit No. WQ0002296000.

The requested amendments from the application would remove effluent limitations for ammonia (as N), high explosives, oil and grease, total suspended solids, total cyanide, total antimony, total arsenic,

total beryllium, total cadmium, total chromium, total cobalt, total lead, total mercury, total molybdenum, total nickel, total selenium, total silver, total thallium, and total titanium at Outfall 001; would increase effluent limitations for total copper, total manganese, and total zinc at Outfall 001; would authorize the use of a minimum of 21 days residence time as an alternative to chlorination requirements; and would cause the permit to be reissued only under state regulatory authority (the Texas Water Code) and not under federal regulatory authority (the Clean Water Act).

The draft permit does not incorporate all requested amendments from the application. There are no changes in flow restrictions or effluent limitations for high explosives, oil and grease, biochemical oxygen demand, chemical oxygen demand, or pH. The draft permit does change the effluent limitations for total suspended solids, total copper, total manganese, and total zinc, it also eliminates monitoring for ammonia, total cyanide, total antimony, total arsenic, total beryllium, total cadmium, total chromium, total cobalt, total lead, total mercury, total molybdenum, total nickel, total selenium, total silver, total thallium, and total titanium. The draft permit authorizes the use of a minimum of 21 days residence time as an alternative to chlorination requirements, and reissues the permit only under state regulatory authority and not under federal regulatory authority.

The current permit authorizes the discharge of domestic effluent and industrial effluent at a daily average flow not to exceed 560,000 gallons per day via Outfall 001.

The facility is located approximately 17 miles northeast of the City of Amarillo and 10 miles west of the City of Panhandle, west of Farm-to-Market Road 2373, south of Farm-to-Market Road 293 and north of U.S. Highway 60, in Carson County, Texas. The effluent is discharged to a playa lake, located adjacent to the watershed of McClellen Creek which flows into the North Fork Red River, in Segment No. 0224 of the Red River Basin. The designated uses for Segment No. 0224 are high aquatic life use and contact recreation.

Procedural Background

The application was received on March 8, 2005 and declared administratively complete on June 1, 2005. The Executive Director completed the technical review of the application on October 20, 2005, and prepared a draft permit. The Notice of Receipt of Application and Intent to Obtain a Water Quality Permit was published on June 23, 2005, in the *Amarillo Globe News* and in the *Panhandle Herald*. The Notice of Application and Preliminary Decision was published on September 7, 2006, in the *Amarillo Globe News* and in the *Panhandle Herald*. The Notice of Public Meeting was published on March 12, 2007, in the *Amarillo Globe News* and on March 15, 2007, in the *Panhandle Herald*. The public meeting was held on April 12, 2007, in Panhandle, Texas, at the Panhandle Elementary School Cafeteria. The public comment period ended on April 12, 2007, at the close of the public meeting. Since this application was administratively complete after September 1, 1999, it is subject to House Bill 801 (76th Legislature, 1999).

COMMENTS AND RESPONSES

COMMENT 1:

C.E. Williams, on behalf of the Panhandle Groundwater Conservation District, requests an explanation, in layman terms, of the differences between the proposed permit and the old (current) permit as it concerns both surface and groundwater. Mr. Williams believes there is a difference between surface and groundwater in how they are handled and in how the permit relates to them.

RESPONSE 1:

Both the current and proposed permits authorize the discharge of domestic wastewater and industrial wastewater via Outfall 001 at a daily average flow not to exceed 0.56 million gallons per day. The authorized flow rates and wastestreams are the same in both permits.

The current permit was issued as a TPDES permit authorizing a discharge to surface waters. The treated wastewater was required to meet applicable Texas Surface Water Quality Standards (TSWQS) through limitations designed to protect the playa's ability to maintain compliance with those standards.

The proposed permit was developed incorporating TCEQ's 1997 Playa Lake Policy Statement which exempts certain discharges to playa lakes from having to comply with TSWQS based effluent limitations. The Playa Lake Policy Statement is part of the *Procedures to Implement the Texas Surface Water Quality Standards*. These implementation procedures were adopted by the TCEQ on August 23, 2002. They were subject to Environmental Protection Agency (EPA) review and approval in accordance with the Memorandum of Agreement between the TCEQ and EPA concerning the TPDES program. In a letter dated November 22, 2002, EPA approved the portion of the *Procedures to Implement the Texas Surface Water Quality Standards* containing the Playa Lake Policy Statement.

In order to help explain the differences between the current and proposed permit, it is necessary to give some historical information about the permitting process. Prior to 1998, a facility such as Pantex was required to obtain two permits for its wastewater discharge. The first permit came from the State of Texas and was a "state-only" permit. The second permit came from the EPA as part of the National Pollutant Discharge Elimination System (NPDES) program.

Prior to 1998, the Playa Lake Policy Statement was applied to "state-only" permits and provided an exemption to the Texas Surface Water Quality Standards (TSWQS). The Playa Lake Policy Statement states, "Except as otherwise provided in this policy, a permit, or order of the Commission, the discharge from any existing industrial or domestic wastewater treatment facility that is authorized to use and has used a playa lake, which does not feed into any surface water of the state, as a wastewater retention facility before July 10, 1991 . . . shall not be subject to meeting [the TSWQS] or other requirements for dischargers to waters in the state." Pantex had discharged to a playa lake prior

¹ The Playa Lake Policy Statement can be found on page 152 of the *Procedures to Implement the Texas Surface Water Quality Standards* (available online at http://www.tceq.state.tx.us/files/rg-194.pdf 4005964.pdf) and is attached to this RTC as Attachment A.

to July 10, 1991.

However, the federal NPDES permit required compliance with the Texas Surface Water Quality Standards. The Clean Water Act gave federal jurisdiction over "waters of the United States," and Title 40 of the Code of Federal Regulations (CFR), Section 122.2, includes playa lakes in its definition of "waters of the United States." Therefore, the NPDES permit required the discharge to meet applicable water quality standards.

In 1998, EPA delegated the authority to implement the NPDES program to the State of Texas. At that time the two required permits were combined into one permit, a Texas Pollutant Discharge Elimination System (TPDES) permit. A facility such as Pantex was now only required to obtain the TPDES permit prior to discharging.

The Playa Lake Policy Statement states that "if a finding is made that a waste discharge into a playa of industrial or municipal waste (authorized before July 10, 1991) is subject to the TPDES program, any existing permit will be amended to include a reasonable compliance period [in order to meet TSWQS], consistent with other agency rules." In order to determine if a discharge to a playa lake is subject to the TPDES program, the Playa Lake Policy Statement states, "Such discharges are subject to the TPDES program if the playa is considered as waters of the United States."

As discussed above, 40 CFR, Section 122.2 includes playa lakes in its definition of "waters of the United States." Therefore, the discharge lost its exempted status and was subject to the TPDES program, and its TPDES permit required its discharge to meet applicable TSWQS.

On January 9, 2001, the United States Supreme Court issued a decision in *Solid Waste Agency of Northern Cook County (SWANCC) v. the United States Army Corps of Engineers*, 531 U.S. 159 (2001).² This ruling was followed by a June 19, 2006 ruling by the U.S. Supreme Court in the consolidated cases, *Rapanos v. United States* and *Carabell v. United States*, 126 S. Ct. 2208 (1996).³ These cases changed the manner in which the definition of waters of the United States was interpreted.

These court cases narrowed the definition of navigable waters, consequently narrowing the definition of "waters of the United States." When this new interpretation of "waters of the United States" is applied to the Playa Lake Policy Statement, this particular Pantex playa is no longer considered as "waters of the United States," and is, therefore, not required to have federal authorization for its discharge. The exemption from the TSWQS that was applied to "state-only permits" before the 1998 delegation of the NPDES program is, once again, in effect for the draft permit.

The following is a summary of the changes between the current and draft permits:

² A copy of the decision is available online at:

http://supct.law.cornell.edu/supct/html/99-1178.ZS.html

³ A copy of the decision is available online at:

http://www.epa.gov/owow/wetlands/pdf/Rapanos SupremeCourt.pdf

- The Applicant requested removal of the effluent limitations and/or monitoring requirements for ammonia (as N), total cyanide, total antimony, total arsenic, total beryllium, total cadmium, total chromium, total cobalt, total lead, total mercury, total molybdenum, total nickel, total selenium, total silver, total thallium, and total titanium at Outfall 001. In the case of the other constituents, other than ammonia, historical self reporting data indicates that these parameters are not present in the wastewater, making the continuation of these requirements unnecessary. The removal is based on the determination that the discharge to the playa lake is an exempted activity under the TCEQ's Playa Lake Policy Statement and surface water quality standards are not applicable to the playa lake. In the case of ammonia (as N), other effluent limits should adequately maintain the same level of protection as the federal technology-based limitations.
- The draft permit includes effluent limitations for total copper, total manganese, and total zinc at Outfall 001. The limitations are based on 30 TAC 319.22. This change has been made based on the determination that the discharge to the playa lake is an exempted activity under the TCEQ's Playa Lake Policy Statement and surface water quality standards are not applicable to the playa lake. Therefore, the requirements in 30 TAC, Chapter 319 apply.
- The proposed permit authorizes the use of a minimum of 21 days residence time as an alternative to chlorination requirements based on 30 TAC 317.6(c)(1) which states that chemical disinfection is not normally required when the total residence time in the wastewater treatment system (based on design flow) is at least 21 days.
- The proposed permit includes the most current standard language for permit requirements (minimum analytical levels (MALs) and standard boiler plate language).
- The proposed permit includes new Other Requirement Provision No. 13 (please see p. 13 of the draft permit) to clarify the definition of "daily maximum concentration" which states:

Definitions and Standard Permit Conditions, Item 2.c., daily maximum concentration, is amended as follows:

Daily maximum concentration - the maximum concentration measured on a single day, by the sample type specified in the permit, within a period of one calendar month (when required monitoring frequency is equal to or more frequent than once per month) or within the period equivalent to the specified monitoring frequency (when required monitoring frequency is less frequent than once per month).

For additional review, a table showing a comparison of the current and draft permit is attached as Attachment B.

COMMENT 2:

Multiple commentors at the public meeting commented on general concerns over groundwater. Jeri Osborne, Dana Koetting, Mary Hochstein, Jeff Detten, Dale Livingston, Cletus Stein, Mavis Belisle, Danny and Bernice Detten, and J. Murphy state that the discharges from Pantex to ditches and playas have caused contamination of the perched aquifer and pose a risk of contamination of the Ogallala Aquifer, if such contamination has not already taken place. Doris and Phillip Smith state that they know of groundwater contamination issues, which are already prevalent, not only on-site, but also off-site. Addis Charless, Jr., states that the playa lake sits above a perched aquifer that is obviously connected to the Ogallala Aquifer below. Doris Smith is concerned with what is happening with the water in her area and is concerned about contamination to the perched aquifer and the Ogallala Aquifer. Ms. Smith states that, at Pantex, the playas that are on site are a source of recharge to the Ogallala Aquifer. Penni Clark is also very concerned about the groundwater for current and future generations.

RESPONSE 2:

Pantex has been conducting remedial activities on the perched aquifer since 1995. Pantex is required to achieve the remedial action objective defined for the perched aquifer to the satisfaction of the TCEQ and the EPA. The remedial action objectives for the perched aquifer are still under review by the EPA and the TCEQ as part of the "Corrective Measures Study/Feasibility Study" report. Pantex is required to perform interim stabilization measures on the perched aquifer per TCEQ Compliance Plan No. 50284.

To date, no constituents have impacted the Ogallala Aquifer in recognizable or definitive patterns. It is anticipated that the continued remediation activities of the perched aquifer and the long-term monitoring of the Ogallala Aquifer will help prevent any adverse impact to the Ogallala Aquifer.

With respect to the issue that discharges into the playa will recharge the perched aquifer and thence the Ogallala Aquifer, it is not anticipated that the discharges regulated by the proposed permit will cause any additional adverse impact to the quality of the Ogallala Aquifer. If the wastewater discharge under the proposed permit were to migrate into the vicinity of the perched aquifer, it is anticipated that the on-going groundwater remediation activities would prevent any contaminants from migrating down to the Ogallala Aquifer.

COMMENT 3:

Jeri Osborne, Dana Koetting, Mary Hochstein, Jeff Detten, Dale Livingston, Cletus Stein, Mavis Belisle, Danny and Bernice Detten, and J. Murphy state that the proposed permit will allow increased discharges of contaminated water with increased levels of contamination into the playa. Doris and Phillip Smith state that to further contaminate this large expanse of groundwater by depositing more water into the playa is unpardonable. They state that the playa poses one of the greatest threats to the Ogallala Aquifer at the present time, and ask why would anyone want to

compound the clean-up issues by putting more water into this playa? **Doris and Phillip Smith** also state that the proposed permit will allow increased discharges of contaminated water with increased levels of contamination into the playa. **C.E. Williams**, on behalf of the **Panhandle Groundwater Conservation District**, states that the application raises serious concerns to the Panhandle Groundwater Conservation District due to the potential risk of introducing additional contaminants affecting the land, surface water, and groundwater.

RESPONSE 3:

The draft permit maintains the same volume of permitted flows that are established in the current wastewater discharge permit. There will be no increase to the authorized quantity of wastewater that can be discharged via Outfall 001 into the playa.

The draft permit includes increased effluent limitations for total copper, total manganese, and total zinc at Outfall 001 and removes effluent limitations for ammonia (as nitrogen), cyanide, total arsenic, total chromium, total lead, total nickel, total thallium, and total titanium at Outfall 001. The effluent limitations for total suspended solids (TSS) have also been altered. The October-February seasonal limits for TSS have been changed to match the March – September seasonal limits of 60 mg/L daily average and 90 mg/L daily maximum. Ammonia (as nitrogen) will be controlled through other limited parameters that are continued in the draft permit. The remaining constituents, for which effluent limitations have been removed, have not been detected in the effluent.

These changes are based on the determination that the discharge to the playa lake falls under the exemption contained in the TCEQ's Playa Lake Policy Statement, and therefore, surface water quality standards are not applicable to the playa lake. For more information on the exempted status of the discharge, refer to Response No. 1.

The permittee will be required to perform an analysis for all possible contaminants contained in the discharge and report the results to the TCEQ whenever the permit needs to be renewed or a major amendment is requested.

For the reasons discussed above and in Response No. 2, these changes are not expected to pose any additional risk to the groundwater quality of the perched aquifer or of the Ogallala Aquifer.

COMMENT 4:

Mavis Belisle believes that there is not adequate justification for discharges to the playa that she believes result in the contamination of both the perched aquifer, and if not today, then tomorrow, of the Ogallala Aquifer. Ms. Belisle states that contamination will build up because she knows it is in the soils.

RESPONSE 4:

It is the ED's understanding that the contamination at the Pantex plant site is a result of historical activities that are no longer conducted in the same manner at the facility today. Current facility operations, subject to regulation under this permit, should not have any adverse impact to surface waters or groundwaters in conjunction with current corrective action activities.

COMMENT 5:

Jeri Osborne, Dana Koetting, Jeff Detten, Mavis Belilse, and Danny and Bernice Detten state that the "contamination" or "proposed modification" would increase risks to their health and the health of their families.

RESPONSE 5:

The proposed changes in the draft permit are not expected to increase risks to the health of the adjacent property owners and other users of the Ogallala Aquifer. The effluent limitations proposed in the draft permit are consistent with applicable agency rules, regulations, and policies which have been developed and are implemented to be protective of human health and the environment.

For a discussion of possible groundwater effects due to the proposed discharge, refer to Response No. 2 and Response No. 3.

Regarding possible health risks from exposure to the playa itself, the playa is located on a highly secured federal facility and is not accessible to the public for swimming, fishing, or other recreational activities.

COMMENT 6:

Concerns were raised regarding possible negative impacts to property value and a landowner's ability to use his or her property. Jeri Osborne, Dana Koetting, Mavis Belilse, and Danny and Bernice Detten state that the "contamination" or "proposed modification" would increase risks to the value of their property. Danny and Bernice Detten state that the proposed modification increases risks on the value of the landowners' property. They state that their son and his family previously lived on the property. Pantex paid for their relocation; however, the property cannot be sold for fair market value. Jeff Detten states that there is a possible detrimental effect on the value of his property due to the proposed modification. Mary Hochstein, Dale Livingston, Cletus Stein, and J. Murphy state that the "contamination" or "proposed modification" would increase risks to their ability to use their property.

RESPONSE 6:

TCEQ's jurisdiction in a wastewater permit application is limited to the issues set out in Chapter 26 of the Texas Water Code. TCEQ does not have jurisdiction to consider property values when reviewing an application for a wastewater permit, nor does the TCEQ have zoning authority. Except

under limited circumstances, not implicated under this permit application, the issuance of a permit cannot be denied on the basis of the facility's location.

COMMENT 7:

Multiple commentors at the public meeting commented on the removal of effluent limitations for hexavalent chromium from the draft permit. **Doris Smith** is concerned with what is being proposed in the draft permit. She states that she knows for sure that chromium has been in the perched aquifer and that it has already gone off of the east side of the south east side of Pantex and has been detected in the Ogallala well of the neighbor just to the east of Pantex. **Mavis Belisle** states that there is absolutely no justification for not imposing limitations on chromium discharges into the water, particularly hexavalent chromium which is clearly linked to Pantex operations. **Ms. Belisle** states that limits need to be stringent and need to be carefully monitored. **Ms. Belisle** states that chromium needs to be eliminated in all cases. **Addis Charless, Jr.**, states that hexavalent chromium has been recently discovered in the Ogallala Aquifer on property immediately adjacent to Pantex.

RESPONSE 7:

To date, there has been no reproducible and verifiable data to support the position that the Ogallala Aquifer has been contaminated with hexavalent chromium.

During a quarterly Pantex public meeting in September 2006 (not the public meeting for this permit application), Mr. and Mrs. Koetting presented laboratory analytical results for hexavalent chromium associated with an Ogallala Aquifer groundwater sample collected from their residential water well. Upon review of the results, the TCEQ determined that the groundwater sample was not analyzed by the appropriate analytical method, and was also reported as a "non-detect" result. The TCEQ Region 1 office elected to follow up on Mr. and Mrs. Koetting's concern about a potential impact to the Ogallala Aquifer on their property by collecting Ogallala Aquifer samples from their residential well and analyzed the samples for chromium, hexavalent chromium, metals, and explosives. An impact to the Koetting's Ogallala well from a Pantex release was not confirmed upon conclusion of a TCEQ Technical Support Section review of the data collected by the TCEQ Region 1 office.

Two follow-up samples taken by the TCEQ Region 1 Office yielded one sample with a detectible result for hexavalent chromium but was non-detect for a total chromium result; and a second sample which was non-detect for both hexavalent and total chromium. Since the hexavalent chromium concentration cannot be more than the respective total chromium concentration, the hexavalent chromium result of the first sample is not considered reliable.

The lack of reproducible results has called the original result into question. Without reproducible results, the data used in the original result is deemed unreliable to demonstrate that the Ogallala Aquifer has been contaminated with hexavalent chromium.

The Applicant has conducted effluent monitoring for total chromium for the current permit term. In

this period of time, none of the samples have shown any detectable amounts of total chromium in their wastewater. Hexavalent chromium is a component of total chromium. Therefore, because total chromium has been shown to be non-detectable in the wastewater, hexavalent chromium is expected to be non-detectable as well. Based on modeling results indicating that total chromium is not present in the wastewater, the ED has removed the effluent limit for hexavalent chromium.

The permittee will be required to perform an analysis for all possible contaminants contained in the discharge and report the results to the TCEQ whenever the permit needs to be renewed or a major amendment is requested.

COMMENT 8:

C.E. Williams, on behalf of the Panhandle Groundwater Conservation District, requests that, for the effluent limitations and/or monitoring requirements that are proposed to be removed from the draft permit, the TCEQ consider a sampling period for the constituents for 2 or 5 years. Doris Smith is concerned about the discontinued monitoring requirements in the draft permit.

RESPONSE 8:

The parameters that are no longer required to be monitored in the draft permit were removed because they are not considered to be potential contaminants to the local groundwater resources. Parameters that were removed were either non-detectable in the historical self-reporting data or were not considered a pollutant of concern based on the current corrective action plan for the perched aquifer.

The Applicant has established a record of five years of monitoring with no analytical results above the specified detection levels for the following pollutants: total cyanide, total antimony, total arsenic, total beryllium, total cadmium, total chromium, total cobalt, total lead, total mercury, total molybdenum, total nickel, total selenium, total silver, total thallium, and total titanium at Outfall 001. The Executive Director's staff accepts this record as an adequate demonstration that these parameters are not expected to be present in the discharge in anything but trace levels and that the effluent limitations and/or monitoring requirements are not necessary.

In the case of ammonia (as N) at Outfall 001, the effluent limitations and monitoring requirements were removed because other limited parameters that are continued in the draft permit adequately maintain technology-based limitations for the treatment technology required in the permit. Effluent limitations and monitoring requirements for ammonia (as N) were previously established in the current permit based on the protection of the surface water quality standard criteria for dissolved oxygen for the playa. As part of the technical review process for this application, it was determined that the discharge to the playa lake is an exempted activity under the TCEQ's Playa Lake Policy Statement and that surface water quality standards are not applicable to the playa lake. For more information regarding the exempted status of the discharge, refer to Response No. 1.

In addition, the permittee will be required to perform an analysis for all possible contaminants

contained in the discharge and report the results to the TCEQ whenever the permit needs to be renewed or a major amendment is requested.

COMMENT 9:

Multiple commentors at the public meeting commented on the public notice of the draft permit.

Mavis Belisle states, "I would like to raise some additional comments about the notification for the meeting. In the section in which my name is listed, again, some of the addresses are the old addresses before the 9/11 notification. At least 2 pieces of the property have changed ownership and not within the last year, more than 5 years ago, at least 3 of the people are dead, and there are new land owners and residences in those properties and I don't know very much about the residences around the plant, but those who are my immediate neighbors, I do know that at least 3 households who should've been notified were not, and I'm not sure what that does to the legalities of this process. I'd like to question that."

Doris Smith states, "I also would like to state that there were several landowners that surround the facility that did not get noticed and I'm not certain how the list was compiled, but if there was a possibility that you could go and look at the county records of who the land owners are, I think you would come up with more names and even the correct address because so many of the addresses have been changed because of 9/11 and so some people might not even have gotten the letter because I know the address on all of our mail we received, I mean the neighbors, was to the old HCR post office address so I think that probably needs to be a little bit more of research done."

RESPONSE 9:

As part of the application process, the Applicant is required to provide the agency with a list of all adjacent landowners to the subject facility at the time the application is filed. It is the responsibility of the Applicant to ensure the accuracy of the list. The TCEQ has not required an Applicant to update a landowner list to reflect changes in ownership after the application is filed.

COMMENT 10:

Don Hancock made the following recommendation to the TCEQ in regard to the relationship of the two wastewaters permits (WQ0002296000 and WQ0004397000) that are issued to Pantex: "A suggestion that . . . I would like to put on the record for both TCEQ and the Applicant to consider for the future is that the future renewals of [both permits] be put on coinciding [schedules] because there are concerns that relate to one or [the other] when they are not on the same cycle. It's not at all impossible or contrary to any regulations, as far as I know, to do that in the future. I would urge both TCEQ and the Applicant to consider that for [the] future. I understand that this can't be done at this particular time and that's just a suggestion for the future."

RESPONSE 10:

The proposed expiration date for proposed TCEQ Permit No. WQ0002296000 (the discharge permit) is December 1, 2010. The expiration date of current permit number WQ0004397000 (the irrigation permit) is also December 1, 2010. The expiration dates are based on the basin permitting schedule for the North Fork Red River (Segment No. 0224 of the Red River Basin) which is the drainage basin in which this facility is located.

In accordance with TCEQ regulations, the irrigation permit may be issued for a term up to 10 years in length and the discharge permit may be issued for a term up to five years in length. The possible permit expiration dates for future renewals of the irrigation permit are December 1, 2020; December 1, 2030; December 1, 2040; etc. The projected permit expiration dates for future renewals of the discharge permit are December 1, 2015; December 1, 2020; December 1, 2025; etc. Therefore, it is possible that the two permits could come in for renewal or amendment and be processed together once every 10 years, depending upon the specific expiration dates, assuming the Applicant does not seek to amend its permit in the future.

COMMENT 11:

Penni Clark is concerned about the higher amounts of metals and chemicals going into the irrigation system and believes that there needs to be some accountability for the crop uptake and whether or not the crops are safe for animals and human beings.

RESPONSE 11:

The discharge permit does not authorize or regulate the irrigation operations that take place at the Pantex facility. Those operations are authorized and regulated in the irrigation permit. Crop uptake of pollutants via irrigation operations is an issue that would be relevant to the irrigation permit, but not the proposed discharge permit for this application.

COMMENT 12:

Jerry Stein states that if there are savings to be made by Pantex because of the changes in the draft permit, then he would like to know how much the savings are.

RESPONSE 12:

A review of the base analytical costs for the removed parameters estimates a base annual savings of approximately \$3000. This estimate is based on the general analytical costs for services from commercial laboratories in the State of Texas. There are other expenditures related to analytical testing (staff time for taking samples, reviewing and managing data, etc.) for which additional savings cannot be estimated by the Executive Director's staff.

COMMENT 13:

Jerry Stein asks what would happen if Pantex buys land east of where it is now. Mr. Stein questions if some of the land is drilled, will the water go into this system?

RESPONSE 13:

The draft permit authorizes a discharge of domestic effluent and industrial effluent via Outfall 001 at a daily average flow that shall not exceed 0.56 million gallons per day. One of the wastestreams authorized to be discharged (under the definition of industrial effluent) is treated wastewaters from environmental remediation activities. Wastewaters generated from environmental remediation activities from this land (if owned by the permittee) are authorized to be discharged via the proposed permit provided it complies with all terms and conditions of the permit as issued.

COMMENT 14:

Tonya Klenskins is concerned about the removal of this permit from regulatory coverage under the Clean Water Act. Ms. Klenskins states that while the playa does not have flow to navigable waters, that fact has nothing to do with environmental flows in the Panhandle. Ms. Klenskins states that environmental flows in the Panhandle do not all include flow to a moving stream and that sometimes the flows include groundwater. Ms. Klenskins states that while people understand that this permitting process is covered specifically by TCEQ as a surface water concern, playas definitely are involved in more issues than surface water, and that there are some groundwater issues and some very untested concerns about how discharges affect groundwater and the speed of flow. Ms. Klenskins states that, for the State of Texas, this is a new area of concern with the ruling by the Supreme Court over the Clean Water Act and that this is a time where the issues of playa lakes and groundwater discharges need to be carefully examined.

RESPONSE 14:

In the permitting process, jurisdiction over groundwater protection is exercised by Texas under state law, not under the Clean Water Act. The fact that the draft permit was written as a "state only" permit, did not eliminate any groundwater considerations during the development of the draft permit. As a general matter, groundwater is not within the definition of "waters of the United States," under the Clean Water Act and the Code of Federal Regulations.

COMMENT 15:

Doris Smith is concerned that the playas are not being considered as the important element that they are in the area, and that they are being treated the same as the playas all over the Midwest. Ms. Smith believes that if someone would look into the study of the playas of the High Plains, they would see that the playas are definite rechargers of the Ogallala Aquifer. Ms. Smith also states, "I just wanted to enter into the record, and I don't know that you gentlemen are aware of a study that was done by the Bureau of Economic Geology, 1997, The Playas and the Recharge of the Ogallala Aquifer on the

Southern High Plains of Texas, and it very well states in [the study] exactly what's happening with our Playas and why we are so concerned. And I would really like you all to take note of this that was put out by the Bureau of Economic Geology as well in 1993-1994. The Bureau of Economic Geology put out some milestone reports with regard to the study that they were doing on the Pantex side of the playas and Bill Mullican was one of the writers of the milestone reports as he was also one of the authors of this particular book that was put out. I would just like that to be entered into the record as for something we would like for you to check into."

RESPONSE 15:

Studies, specific to the Pantex site, show that surface water accumulates in playas and is focused downward where the groundwater accumulates on an intermediate confining layer. The intermediate confining layer is located above the main saturated portion of the Ogallala Aquifer. The occurrence of groundwater accumulating or "perching" on an intermediate confining layer above a saturated section is called "perched" groundwater.

Intermediate depth wells monitor the accumulation of perched groundwater on this confining layer. Contaminants associated with the Pantex operation are found in the playa sediments and the perched groundwater mounded on the intermediate confining layer. Additional monitoring wells are completed deeper below the intermediate depth confining layer into the Ogallala Aquifer and, at the present time, do not show the contaminants associated with the Pantex operation. The intermediate confining layer appears to prevent recharge to the main saturated section of the Ogallala Aquifer.

In summary, the Pantex playa accumulates and focuses surface water downward where recharge and accumulation on top of an intermediate confining layer prevents recharge to deeper Ogallala sediments.

Furthermore, remediation monitoring wells will be located down gradient from the permitted playa discharge outfall. The intent of the remediation monitoring wells will be to withdraw and reduce the contaminated groundwater mound from the intermediate depth confining layer. The groundwater will undergo a process to reduce the contaminants and be returned to surface water impoundments. The remediation process is expected to have the effect of limiting the lateral spread of the contaminated mound and reducing the volume of perched groundwater accumulating on the intermediate confining layer.

As suggested by the commentor, the following groundwater studies, carried out by the Bureau of Economic Geology, were reviewed and do not contradict the specific fact finding performed by the Executive Director's staff during their technical review:

 Thomas C. Gustavson, Vance T. Holliday, and Susan D. Hovorka, 1995, Bureau of Economic Geology Report of Investigations No. 229, "Origin and Development of Playa Basins, Sources of Recharge to the Ogallala Aquifer, Southern High Plains, Texas and New Mexico."

- W.F. Mullican III, N.D. Johns, and A.E. Fryar, 1997, Bureau of Economic Geology Report of Investigations No. 242, "Playas and Recharge of the Ogallala Aquifer on the Southern High Plains of Texas-An Examination Using Numerical Techniques."
- Bridget R. Scanlon, Richard S. Goldsmith, and W.F. Mullican III, 1997, Bureau of Economic Geology Report of Investigations No. 243, "Spatial Variability in Undersaturated Flow Beneath Playa and Adjacent Interplaya Settings and Implications for Contaminant Transport, Southern High Plains, Texas."

COMMENT 16:

Jerry Stein was informed that the constituents, for which monitoring requirements were proposed to be removed in the draft permit, would be analyzed and reported each time the permit comes up for renewal or when an application for amendment is made. **Mr. Stein** wants to know how often that would be.

RESPONSE 16:

A complete effluent analysis is required anytime an application for a renewal or a major amendment of the permit is submitted. Since the permit is on a five year basin permitting cycle, the effluent analysis should occur at a minimum of once every five years.

COMMENT 17:

Tonya Klenskins is concerned that there could be some "cross purposes" with the Pantex compliance agreements and the development of the draft permit.

RESPONSE 17:

There are no conflicts within the different regulatory programs for which the TCEQ has oversight of at the Pantex facility. The permittee must always comply with the requirements of all permits, applicable rules/regulations, Commission issued orders, corrective action plans, etc. If the provisions of two or more regulatory requirements from different program areas apply to a specific common activity, then Pantex would have to comply with all applicable requirements, insuring that the most protective requirement is met.

COMMENT 18:

Mavis Belisle states, "If the Plant believes it needs to discharge to Playa 1 on an emergency basis, or to have that capability to discharge on Playa 1 on an emergency basis, that should be what the permit allows rather than this routine discharge into the Playas, and those emergency situations should be clearly defined and circumstances described in the permit and some recording of that necessity

should [also] be included in [the draft permit]."

RESPONSE 18:

Even though it has been represented by Pantex that the primary method for wastewater disposal is by subsurface drip irrigation of on-site property as regulated by the irrigation permit and the discharge of wastewater to the playa is the secondary method of wastewater disposal, the discharge permit was developed on the basis that the two permits are independent and separate from each other. As such, the permit conditions were developed based on the assumption that wastewater is discharged to the playa at the limitations specified in the permit. Under that scenario, the draft discharge permit complies with all applicable rules and regulations. No conditions that limit when discharges can occur are necessary and are, therefore, not included in the draft permit.

COMMENT 19:

Mavis Belisle believes that the draft permit does not meet the best technology standards.

RESPONSE 19:

Effluent limitations established in the proposed permit do meet best available technology standards. In the absence of applicable EPA categorical guidelines, technology-based effluent limitations are based on best professional judgment (BPJ), which is the case in this permit action.

Effluent limitations for biochemical oxygen demand (5-day), total suspended solids, chemical oxygen demand, oil and grease, high explosives (HMX, RDX, PETN, and TNT), and pH are continued from the current TPDES permit and were previously based on BPJ. The limitations for biochemical oxygen demand (5-day), total suspended solids, chemical oxygen demand, oil and grease, and pH are consistent with the limitations established in other wastewater permits in the absence of an applicable EPA categorical guidelines or other agency rules. The limitations for high explosives (HMX, RDX, PETN, and TNT) were continued after research failed to yield a basis for revised limitations.

Effluent limitations and monitoring requirements for total residual chlorine were continued from the previous TPDES permit and based on disinfection requirements for treated sanitary wastewater. These limitations and monitoring requirements are only required when the permittee cannot maintain a minimum residence time in the treatment system of 21 days before discharge via Outfall 001. The 21 days residence time requirement is based on 30 TAC 317.6(c)(1).

Effluent limitations and monitoring requirements for total copper, total manganese, and total zinc at Outfall 001 are based on 30 TAC §319.22.

COMMENT 20:

Mavis Belisle believes that the draft permit does not meet quality water standards for the way the water is used and will be used in the future.

RESPONSE 20:

As part of the technical review process for this application, it was determined that the discharge to the playa lake is an exempted activity under the TCEQ's Playa Lake Policy Statement and that the surface water quality standards (Title 30 TAC Chapter 307) are not applicable to the playa lake. For more information concerning the exempted status of the discharge, refer to Response No. 1.

The only other applicable regulations for this discharge to a surface water are the following:

- 30 TAC §317.6(c)(1) serves as the basis for the effluent limitations and monitoring requirements for total residual chlorine at Outfall 001. The inclusion of these limitations is based on disinfection requirements for treated sanitary wastewater. These limitations and monitoring requirements are only required when the permittee cannot maintain a minimum residence time in the treatment system of 21 days before discharge via Outfall 001.
- 30 TAC §319.22 serves as the basis for the effluent limitations and monitoring requirements for total copper, total manganese, and total zinc at Outfall 001.

COMMENT 21:

Mavis Belisle commends the TCEQ for disallowing a request to drop the monitoring for high explosives. Ms. Belisle believes it was a good decision.

RESPONSE 21:

The Executive Director acknowledges the comment.

COMMENT 22:

Mavis Belisle states that the draft permit does not conserve Texas' limited water resources in an adequate way. Ms. Belisle states that the discharge limitations, both daily maximum and average, are not justified, and do not meet the goal of eliminating such discharges.

RESPONSE 22:

The effluent limitations proposed in the draft permit are consistent with applicable agency rules, regulations, and policies which have been developed and are implemented to be protective of human health and the environment, including water resources. The authorized flow rates and wastestreams have not been increased in the draft permit.

The limitations contained in the draft permit are consistent with the guidance provided in the *Procedures to Implement the Texas Surface Water Quality Standards*. These implementation procedures were adopted by the TCEQ on August 23, 2002. They were subject to EPA review and approval in accordance with the Memorandum of Agreement between the TCEQ and EPA concerning the TPDES program. In a letter dated November 22, 2002, EPA approved the portion of the *Procedures to Implement the Texas Surface Water Quality Standards* containing the Playa Lake Policy Statement.

COMMENT 23:

Doris Smith would like to see the state become more conscious of the playas in the area, and treat them separately, not just as a group of playas all over the United States.

RESPONSE 23:

Even though the agency rules and policies that are applicable to this draft permit are applied on a state-wide basis, the regulatory requirements in the draft permit were established after a site specific review of the Pantex facility.

COMMENT 24:

Doris Smith wants the state to continue to monitor very closely what is going on at Pantex and to be very aware that the water is precious to the people in the area.

RESPONSE 24:

With respect to the activities regulated by all TCEQ permits for the Pantex facility, the TCEQ will continue to monitor Pantex's compliance with the requirements of those permits and any potential impact those regulated activities may have to human health and the environment.

COMMENT 25:

Tonya Klenskins requested a contested case hearing during the formal oral comment period of the public meeting.

RESPONSE 25:

Requests for a contested case hearing must be in writing, in addition to meeting certain other requirements. 30 TAC §55.201 requires that a request for a contested case hearing comply with the following: (1) Be in writing; (2) Be timely filed; (3) Request a contested case hearing; (4) Give the name, address, daytime telephone number, and, where possible, fax number of the person who files the request; (5) Provide any other information specified in the public notice of application; and (6) List all relevant and material disputed issues of fact that were raised during the public comment

period and that are the basis of the request.

The Office of the Chief Clerk will mail this Response to Public Comment to everyone who submitted public comments and to those persons on the mailing list for this particular application. Instructions on how to request a contested case hearing or make a request for reconsideration will be included in a letter that will be attached to this document.

Additional information about the process can be obtained by calling the Office of Public Assistance, toll fee, at 1-800-687-4040.

No changes to the draft permit have been made.

Respectfully submitted,

Texas Commission on Environmental Quality

Glenn Shankle Executive Director

Robert Martinez, Director Environmental Law Division

Marc Friberg, Staff Attorney Environmental Law Division

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Representing the Executive Director of the Texas Commission on Environmental Quality

ATTACHMENT A

Playa Lake Policy Statement

Except as otherwise provided in this policy, a permit or order of the Commission, the discharge from any existing industrial or domestic wastewater treatment facility that is authorized to use and has used a playa lake, which does not feed into any surface water of the state, as a wastewater retention facility before July 10, 1991, the effective date of TNRCC adoption of related revisions to the Texas Surface Water Quality Standards, 30 TAC Chapter 307, shall not be subject to meeting such standards or other requirements for discharges to waters in the state. However, additional requirements may be imposed in existing permits so that such discharges shall not create a nuisance or otherwise impair public health, nor cause contamination of groundwater. Such requirements include, but are not limited to, the prohibition of the discharge of raw, untreated wastewater into a playa.

Accordingly, public access to the playa lake shall be limited (e.g., by fencing and/or "no trespassing" signs) and applicable buffer zones shall be required. Additionally, because of the uncertainty of the impermeability and durability of the natural clay liner found on the bottom of a playa lake, as well as the exact location and depth of the underlying water table, groundwater quality monitoring and reporting shall be a condition of the permit or permit renewal. If groundwater contamination from the discharge is detected, a corrective action plan shall be developed and remediation measures shall be required.

If the wastewater is used for irrigation, the discharge must also meet applicable treatment levels and application rates based upon soil depth and characteristics, topography, whether the land has been plowed, crop uptake rates, and other relevant factors.

New discharges to playa lakes not previously authorized to be used as wastewater treatment or retention facilities before July 10, 1991, shall meet applicable surface water quality standards in addition to the groundwater protection requirements above. Additionally, if a finding is made that a waste discharge into a playa of industrial or municipal waste (authorized before July 10, 1991) is subject to the TPDES program, any existing permit will be amended to include a reasonable compliance period, consistent with other agency rules. Such discharges are subject to the TPDES program if the playa is considered as waters of the United States. Unclassified playa shall be presumed to have the same standards as that for an unclassified intermittent water body until more specific standards are established for this water in the state.

Dail Pears

dn, Executive Director

ATTACHMENT B

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CERTIFICATE OF SERVICE

I hereby certify that on January 4, 2007, the original of the "Executive Director's Response to Comments" on the United States Department of Energy and BWXT Pantex, L.L.C., application for proposed TCEQ Permit No. WQ0002296000 was filed with Office of the Chief Clerk, Texas Commission on Environmental Quality, Austin, Texas.

Marc Friberg, Staff Attorney

Environmental Law Division

Texas Commission on Environmental Quality